

10/538038  
JC17 Rec'd PCT/PTO 08 JUN 2005

In the Claims:

- 1.(original) A  $G_{\alpha q}$ -Gustducin chimeric G-protein.
- 2.(currently amended) The chimeric  $G_{\alpha q}$ -Gustducin according to of claim 1 characterised in that it is a  $G_{\alpha 15}$  or  $16$ -Gustducin protein
- 3.(currently amended) The chimeric G-protein according to of claim 1 ~~or claim 2~~ wherein at least the last 5 amino acids of the  $G_{\alpha q}$  are replaced by a corresponding number of amino acids of Gustducin.
- 4.(currently amended) The chimeric G-protein according to of claim 3 wherein the last 44 amino acid sequences of the  $G_{\alpha q}$  is replaced with a 44 amino acid unit of Gustducin.
- 5.(original) A chimeric G-protein according to claim 1 having an amino acid sequence set forth in the SEQ ID 2
- 6.(original) A G-protein according to claim 1 encoded for by a nucleic acid comprising a nucleotide sequence set forth in SEQ ID 1
- 7.(currently amended) A nucleic acid comprising the nucleotide sequence set forth in SEQ ID 1 encoding for a G-protein according to ~~defined in~~ claim 1.
- 8.(currently amended) An expression vector comprising nucleic acid comprising the nucleotide sequence set forth in SEQ ID 1 encoding for a G-protein according to ~~defined in~~ claim 1.

- 9.(currently amended) A host cell transformed with an expression vector as according to ~~defined in~~ claim 8.
- 10.(currently amended) A method of producing a chimeric G-protein according to ~~as defined in~~ claim 1 comprising the step of culturing host cells having contained therein an expression vector encoding for the chimeric G-protein, under conditions sufficient for expression of said G-protein, thereby causing production of the protein, and recovering the protein produced by the cell.
- 11.(currently amended) A method of analysis and discovery of modulators of bitter taste receptors using the chimeric proteins according to ~~defined in~~ claim 1.
- 12.(currently amended) A method ~~Method~~ according to claim 11 employing a mammalian cell-based assay employing a transfected gene or cDNA encoding a chimeric protein of the invention and a taste receptor, the method comprising the steps of contacting a compound with cells, and determining the functional effect of the compound on chimeric G-protein.
- 13.(original) A method according to claim 12 wherein the functional effect is determined by measuring the changes in intracellular messengers such as IP3 or calcium<sup>2+</sup>.
- 14.(currently amended) A compound, or collection of compounds containing said compound, that acts to modulate taste response of taste receptors for use in an assay method according to ~~defined in~~ claim 11.
- 15.(currently amended) A compound, or collection of compounds containing the compound discovered according to an assay method according to claim 11 ~~described in claims 11~~ and foods, beverages or oral pharmaceutical or nutraceutical preparations containing same.

- 16.(new) The chimeric G-protein according to claim 2 wherein at least the last 5 amino acids of the  $G_{\alpha q}$  are replaced by a corresponding number of amino acids of Gustducin.
- 17.(new) The chimeric G-protein according to claim 16 wherein the last 44 amino acid sequences of the  $G_{\alpha q}$  is replaced with a 44 amino acid unit of Gustducin.